

Appl. No.: 10/711,439  
Amdt. Dated: 5/25/2006  
Reply to Office action of: 03/15/2006

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claim 1 (currently amended) A rear lighting system applied adaptable to an automotive vehicle, of the type comprising:

at least one supporting element (1),

a plurality of light sources (2) assembled on said at least one supporting element (1), which is at least one in number, and

a control means (3) electrically connected to said light sources (2) to actuate them such that the light sources (2) can emit with at least two light intensity levels in order suitable to carry out at least two corresponding lighting functions, one of which said lighting levels consisting eonists of acting as brake lights,

characterized in that said control means (3) comprises detection means for detecting a malfunctioning of at least one of said plurality of light sources (2), and in that the said control means(3)are is also adapted to compensate for a corresponding variation in the total light intensity provided by the said rear lighting system due to said malfunctioning by means of actuating or deactivating at least another one of said plurality of light sources (2) and/or increasing or decreasing the current to be made to circulate circulating through at least one functioning said other light source (2)or another different one.

Claim 2 (currently amended) A rear lighting system according to claim 1, characterized in that the light sources (2) of said plurality of light sources (2) are divided into a first group, or main group, and a second group, or spare group, which light sources (2)are usually said second group being normally switched off but and wherein at least a part of which are said second group being actuated by the said control means(3) to compensate thereby compensating for the malfunctioning of any of the light sources (2) of the said first group, if necessary.

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Claim 3 (currently amended) A rear lighting system according to claim 1, characterized in that ~~the light sources (2) all~~ of said plurality of light sources (2) are actuated all at the same time simultaneously by said control means (3), and when at least one of said plurality of light sources (2) malfunctions ~~malfunctioing of one of them occurs, the said~~ control means (3) compensates for a corresponding variation in the total light intensity provided by ~~the~~ of said rear lighting system due to said malfunctioning by means of increasing or decreasing the current to be made to circulate circulating though all ~~the~~ of said plurality of light sources (2).

Claim 4 (currently amended) A rear lighting system according to claim 1, characterized in that another one of said lighting functions consists of acting as anti-fog lights.

Claim 5 (currently amended) A rear lighting system according to claim 4, characterized in that ~~the~~ said plurality of light sources (2) emit with a third light intensity level to carry out a third lighting function consisting of acting as side\_lamps.

Claim 6 (currently amended) A rear lighting system according to claim 5, characterized in that said plurality of light sources (2) are LEDs (2).

Claim 7 (currently amended) A rear lighting system according to claim 6, characterized in that said supporting element (1) is a rigid or flexible printed circuit, and in that said LEDs (2) are welded to electro\_conducting tracks on said rigid printed circuit thereof.

Claim 8 (currently amended) A rear lighting system according to claim 6, characterized in that ~~the~~ said controlmeans(3)comprises an electronic system, comprising at least one microprocessor, associated to said detection means.

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Claim 9 (currently amended) A rear lighting system according to claim 8, characterized in that it is adapted to be at least partially arranged inside a casing closed with a cover, at least partially transparent, said casing situated in the rear part of a vehicle.

Claim 10 (currently amended) A rear lighting system according to claim 9, characterized in that the entire system is adapted to be arranged inside said casing.

Claim 11 (currently amended) A rear lighting system according to claim 9, characterized in that the part a portion of the control means (3) are is adapted to be arranged in another part of the a vehicle different to that of said casing.

Claim 12 (currently amended) A rear lighting system according to claim 11, characterized in that said electronic system is adapted to be a ~~forms~~ part of a computer on board said vehicle.

Claim 13 (currently amended) A rear lighting system according to claim 1, characterized in that the said electronic system of said control means (3) controls said current to be made to circulate circulating through said at least said one other light source by means of said electronic system.

Claim 14 (currently amended) A rear lighting system according to claims 1 or 3, characterized in that the said control means (3) is adapted to be suitable to carry out said increase or decrease of the current to be made to circulate current circulation though said at least said other light source (2), another different one, or all the light sources (2), by means of Pulse Wave Modulation (PWM) techniques.

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Claim 15 (currently amended) A rear lighting system according to claim 1, characterized in that the said control means (3) are is adapted to actuate at least one of said plurality of light sources (2) to emit a with said light intensity level in order to carry out said function consisting of suitable for acting as brake lights, according to a corresponding to the detection of a sudden speed reduction of the a vehicle not caused by actuating a brake pedal thereof.

Claim 16 (currently amended) A rear lighting system according to claim 15, characterized in that adapted to detecting said sudden speed reduction of the said vehicle is detected by means of an accelerometer included in the system.

Claim 17 (currently amended) A rear lighting system according to claim 15, characterized in that adapted to detecting said sudden speed reduction of the said vehicle is detected by means of an inclinometer included in the system, detecting a corresponding inclination of the vehicle caused by the sudden speed reduction.

Claim 18 (currently amended) A rear lighting system according to claim 15, characterized in that said control means (3) is adapted to detecting said sudden speed reduction of the said vehicle is detected by means of communication a~~corresponding~~ consultation of the control means (3) with a computer on board the said vehicle.

Claim 19 (currently amended) A rear lighting system according to claim 2, characterized in that the said control means (3) are is adapted to actuate at least one of said plurality of light sources (2) to emit with said a light intensity level in order to carry out said function consisting of suitable for acting as anti-fog lights, according to a corresponding upon detection of fog in the environment surrounding the vehicle.

Claim 20 (currently amended) A rear lighting system according to claim 19, characterized in that said control means (3) is adapted to detection of fog is carried out by means of using at least one fog sensor device.

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Claim 21 (currently amended) A rear lighting system according to claim 20, characterized in that said control means (3) is adapted to detect fog using a fog sensor device comprises at least one humidity sensor and one temperature sensor.

Claim 22 (new) A rear lighting system according to claim 6, characterized in that said supporting element (1) is a flexible printed circuit, and said LEDs (2) are welded to electro conducting tracks on said flexible printed circuit.